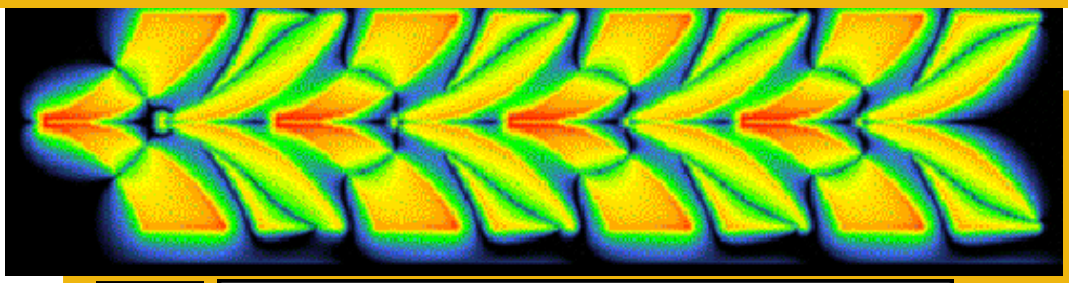
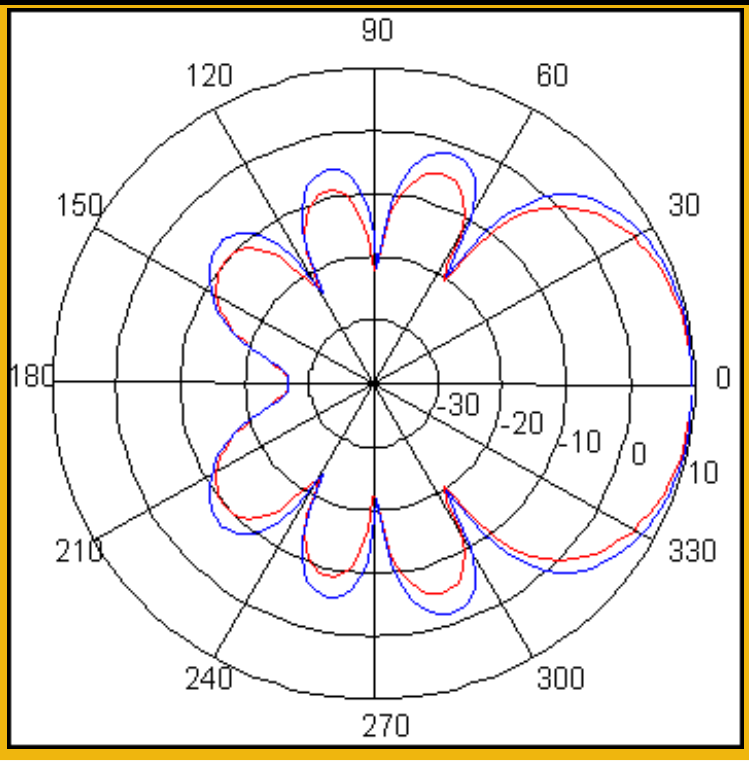
ANALYTICAL AND COMPUTATIONAL ELECTRO-MAGNETICS TEAM





Normal E-Fields & Patterns of a Test Antenna

The Analytical and Computational Electro-Magnetics (ACE) Laboratory is actively involved in using Computational Electromagnetic (CEM) codes to predict the electromagnetic behavior of complex active and passive structures. The capabilities of the ACE Laboratory include modeling antenna radiation performance, predicting antenna-platform interactions, addressing electromagnetic interference issues, and performing radar cross section (RCS) analysis. The personnel of the ACE Laboratory have made significant contributions to the current state of CEM and maintain a strong analytical and numerical background. The ACE Laboratory's electromagnetic code library includes a number of commercially available programs, government owned software, and codes distributed by the Electromagnetic Code Consortium. The ACE Laboratory is in the process of testing and implementing algorithms based on innovative theories developed in-house. Computational facilities include an 8-processor Silicon graphics Onyx, two 32-processor SGI origin 2000 with 36-Gbytes RAM and high performance PC's. The Origin 2000 machines are part of the NAWCAD High Performance Computing Center.